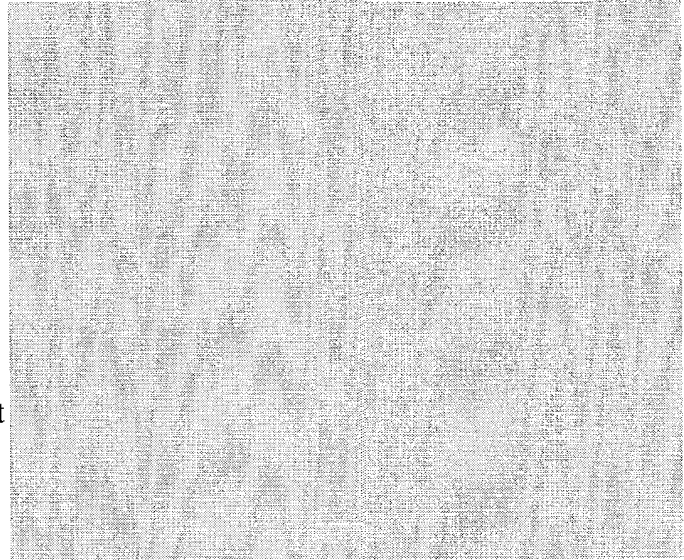


# BIOS

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(bī'ōs) Acronym for *basic input/output system*, the built-in software that determines what a computer can do without accessing programs from a disk. On PCs, the BIOS contains all the code required to control the keyboard, display screen, disk drives, serial communications, and a number of miscellaneous functions.

The BIOS is typically placed in a ROM chip that comes with the computer (it is often called a *ROM BIOS*). This ensures that the BIOS will always be available and will not be damaged by disk failures. It also makes it possible for a computer to boot itself. Because RAM is faster than ROM, though, many computer manufacturers design systems so that the BIOS is copied from ROM to RAM each time the computer is booted. This is known as shadowing.



Many modern PCs have a *flash BIOS*, which means that the BIOS has been recorded on a flash memory chip, which can be updated if necessary.

The PC BIOS is fairly standardized, so all PCs are similar at this level (although there are different BIOS versions). Additional DOS functions are usually added through software modules. This means you can upgrade to a newer version of DOS without changing the BIOS.

PC BIOSes that can handle Plug-and-Play (PnP) devices are known as *PnP BIOSes*, or *PnP-aware BIOSes*. These BIOSes are always implemented with flash memory rather than ROM.